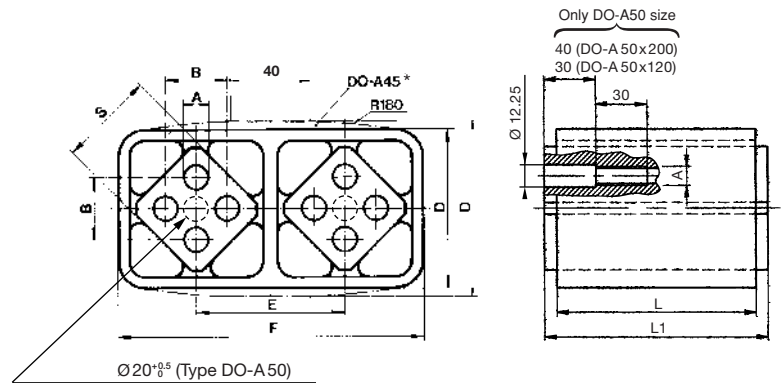
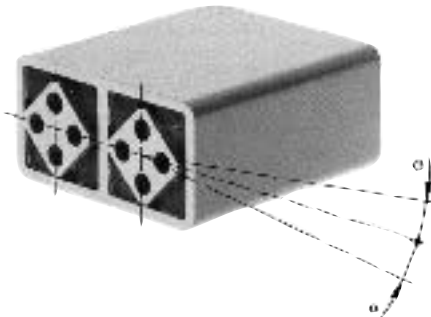




Rubber Suspension Unit (as Elastic Drive Head)

Type DO-A



Art. No.	Type	c_d	L	$L1_{-0.3}$	A	B	D	E	F	S	Weight in kg
01 041 008	DO-A 27 x 60	160	60	65	$8^{+0.5}_0$	$20^{\pm 0.4}$	$47^{\pm 0.15}$	44	$91^{+0.2}_0$	27	0.47
01 041 011	DO-A 38 x 80	210	80	90	$10^{+0.5}_0$	$25^{\pm 0.4}$	$63^{\pm 0.2}$	60	$123^{+0.3}_0$	38	1.15
01 041 013	DO-A 45 x 80	220	80	90	$12^{+0.5}_0$	$35^{\pm 0.5}$	85	73	$149.4^{+1.6}_{-0.4}$	45	1.85
01 041 014	DO-A 45 x 100	260	100	110	$12^{+0.5}_0$	$35^{\pm 0.5}$	85	73	$149.4^{+1.6}_{-0.4}$	45	2.26
01 041 016	DO-A 50 x 120	400	120	130	M12	$40^{\pm 0.5}$	89	78	167	50	5.50
01 041 017	DO-A 50 x 200	600	200	210	M12	$40^{\pm 0.5}$	89	78	167	50	8.50

c_d = dynamic spring value N/mm at $\alpha \pm 5^\circ$, in frequency range 300–600 min⁻¹

Elements with higher load capacity are available on request.

* DO-A 45 with convex housing shape

Material Structure

The housings up to size DO-A 45 are made out of light alloy profiles, housing of size 50 in nodular cast; inner squares in light alloy profile with 4 bores for the fixation of connection brackets shaker: eccentric rod.

Typical Calculation

ROSTA rubber suspension units DO-A employed as elastic drive heads are to be selected so that their spring value corresponds roughly to the total spring value. The oscillation angle α of the units must not exceed $\pm 5^\circ$. Elastic drive heads shall only be used in combination with **resonance** shaker conveyors.

Given:

Total weight of oscillating mass m = 210 kg
 Speed n_{err} = 320 min⁻¹
 Eccentric radius R = 14 mm

Wanted:

Total spring c_t in N/mm

$$c_t = m \cdot \left(\frac{2\pi}{60} \cdot n_{err}\right)^2 \cdot 0.001 = 210 \cdot \left(\frac{2\pi}{60} \cdot 320\right)^2 \cdot 0.001 = 235.8 \text{ N/mm}$$

Selected: 1 piece of DO-A 45 x 100

Guidelines for Fitting

The elastic slider crank drive may be applied optionally onto the trough I or the contermass II, at the beginning of the trough or elsewhere. Force introduction must be 90° to the angle β of the rocker suspensions. The unit axis must be 90° to the longitudinal axis of the conveyor trough and run centrally with this. Fixing is by shaft screws of 8.8 quality (analogous to fixing the universal joint support). **Elastic drive heads should only be applied in natural frequency shaker systems!**

